

## INTERSECTION 136

### Prairie Avenue/190<sup>th</sup> Street Improvement(s)

#### Forecast Near-Term Conditions Intersection LOS Summary

	Weekday AM Peak Hour	Weekday Mid-Day Peak Hour	Weekday PM Peak Hour	Weekend Mid-Day Peak Hour
Without Improvement(s)	44.3 – D	39.5 – D	<b>57.7 – E</b>	39.9 – D
With Improvement(s)	41.2 – D	38.8 – D	48.9 – D	38.9 – D

**Note:** Delay shown in seconds per vehicle; Deficient intersection operation shown in ***bold italics***.

#### Recommended Improvements:

- Modify the northbound Prairie Avenue traffic signal phasing to include a right-turn overlap, which will preclude U-turn movement from westbound to eastbound 190th Street.

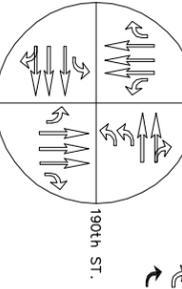


**MITIGATIONS:**  
 NB - MODIFY SIGNAL PHASING TO  
 INCLUDE RIGHT TURN OVERLAP

PRAIRIE AVE.

LEGEND:

EXISTING LANE  
 NEW IMPROVEMENT



SCALE: 1" = 100'

0

50

100

200

**INTERSECTION 136**  
**PRAIRIE AVE/190th ST**  
 CITYWIDE TRAFFIC ANALYSIS MITIGATION MEASURES

**PBF**  
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REV.	DATE	DESCRIPTION	BY	CHECKED

**CITY OF TORRANCE**  
**PUBLIC WORKS DEPARTMENT**

DRAWN:	D. KAUSHIK	DATE:	
DESIGNED:	D. KAUSHIK	APPROVED:	
PROJECT ENGINEER:		SCALE:	AS SHOWN
		SHEET:	1 OF 1
		PLAN NO.:	

**CITY OF TORRANCE CITYWIDE TRAFFIC ANALYSIS MITIGATION MEASURES  
PRELIMINARY COST ESTIMATES**

**Location:** Intersection 136: Prairie Ave & 190th St

**Date:** 2/22/2008

**Mitigation:** Modify Signal Phasing on Northbound Prairie Ave to include right turn overlap.

**Estimated by:** D. Kaushik

	DESCRIPTION OF WORK	UNIT PRICE	QUANTITY	COST
1	Mobilization	10.00% (\$2,000 Min)		\$2,000
2	Clear & Grub	\$10,000.00 / AC		\$0
3	Remove Striping	\$10.00 / LF		\$0
4	Remove Curb & Gutter	\$15.00 / LF		\$0
5	Remove Median Curb	\$30.00 / LF		\$0
6	Remove PCC Sidewalk	\$3.50 / SF		\$0
7	Remove Pavement	\$4.00 / SF		\$0
8	Remove Wall	\$50.00 / LF		\$0
9	Remove Channel	\$15.00 / LF		\$0
10	Remove/Replace Chain Link Fence	\$50.00 / LF		\$0
11	Remove/Replace Wrought Iron Fence	\$10.00 / LF		\$0
12	Remove/Replace Survey Monument	\$800.00 / EA		\$0
13	Reconstruct Metal Beam Guard Rail	\$70.00 / LF		\$0
14	Remove & Relocate Tree	\$3,000.00 / EA		\$0
15	Sawcut	\$1.00 / LF		\$0
16	Relocate Street Light	\$7,500.00 / EA		\$0
17	Relocate Traffic Signal System	\$300,000.00 / EA		\$0
18	Signal Phase Modification	\$10,000.00 / EA	1	\$10,000
19	Relocate Freeway Sign (2 post)	\$1,000.00 / EA		\$0
20	Relocate Sign (1 Post)	\$300.00 / EA		\$0
21	Reconstruct Overhead Sign	\$50,000.00 / EA		\$0
22	Relocate Call Box	\$2,000.00 / EA		\$0
23	Relocate Power Pole	\$25,000.00 / EA		\$0
24	Relocate Catch Basin	\$9,000.00 / EA		\$0
25	Relocate Fire Hydrant	\$2,500.00 / EA		\$0
26	Relocate Bus Shelter	\$2,000.00 / EA		\$0
27	Relocate Bus Bench	\$600.00 / EA		\$0
28	Relocate Monument Sign	\$5,000.00 / EA		\$0
29	Relocate Utility Boxes	\$500.00 / EA		\$0
30	Relocate Main Water Valve	\$10,000.00 / EA		\$0
31	Relocate Utility Vault	\$3,000.00 / EA		\$0
32	Adjust Manhole to Grade	\$1,000.00 / EA		\$0
33	Adjust Water Meter	\$2,000.00 / EA		\$0
34	Adjust Water Valve	\$500.00 / EA		\$0
35	Adjust Minor Above Ground Utilities	\$500.00 / EA		\$0
36	Modify Driveway	\$5,000.00 / EA		\$0
37	Earthwork	\$40.00 / CY		\$0
38	Construct PCC Pavement	\$15.00 / SF		\$0
39	Construct AC Pavement	\$14.00 / SF		\$0
40	Construct AC Overlay	\$3.00 / SF		\$0
41	Construct Slurry Seal	\$0.25 / SF		\$0
42	Construct Striping & Marking	\$4.00 / LF		\$0
43	Construct AC Dike	\$7.00 / LF		\$0
44	Construct Curb & Gutter	\$40.00 / LF		\$0
45	Construct Concrete Barrier	\$50.00 / LF		\$0
46	Construct Median Curb	\$20.00 / LF		\$0
47	Construct Median Concrete	\$10.00 / SF		\$0
48	Construct Median/Parkway Landscaping	\$10.00 / SF		\$0
49	Construct PCC Sidewalk	\$10.00 / SF		\$0
50	Construct Access Ramp	\$5,000.00 / EA		\$0
51	Construct Retaining Wall	\$50.00 / SF		\$0
52	Construct Storm Drain Main	\$100.00 / LF		\$0
53	Construct RCB	\$1,000.00 / LF		\$0
54	Construct Headwall	\$5,000.00 / EA		\$0
55	Construct Concrete V-Ditch	\$15.00 / LF		\$0
56	Construct Bridge Widening	\$500.00 / SF		\$0
57	Construct Wall	\$70.00 / LF		\$0
58	Building/Structure Demolition (3-Story Bldg)	\$10.00 / SF		\$0
59	Traffic Control (\$5,000 min)	8%	1	\$5,000
60	Drainage Items	10%		\$0
61	SWPPP Plan and Implementation	6%		\$0
	<b>CONSTRUCTION SUBTOTAL</b>			<b>\$17,000</b>
	Right-of-Way	100 / SF		\$0
	Right-of-Way Management	5 / %		\$0
	<b>RIGHT-OF-WAY SUBTOTAL</b>			<b>\$0</b>
	<b>TOTAL CONSTRUCTION &amp; RIGHT-OF-WAY COST</b>			<b>\$17,000</b>
	Preliminary Project Development (10% of total Construction/RW cost)			\$2,000
	Design Engineering/Administration Costs (15% of total Construction/RW cost) (\$10,000 min)			\$10,000
	Construction Engineering Costs/Administration (10% of total Construction/RW cost) (\$5,000 min)			\$5,000
	Contingency (20% of Total Construction/RW cost) (\$5,000 min)			\$5,000
	<b>TOTAL PROJECT COSTS</b>			<b>\$39,000</b>